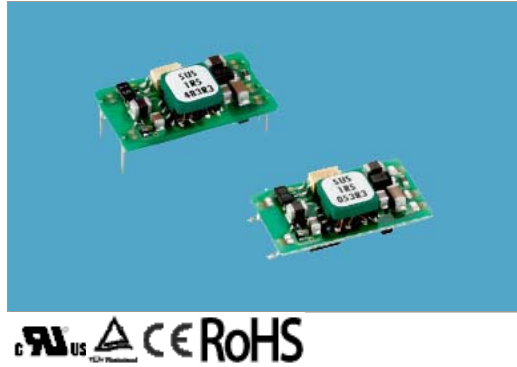


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SUS1R5



Features

- High reliability : not built-in aluminum and tantalum electrolytic capacitor
- SMD mounting type and through-hole mounting type
- High efficiency (synchronous rectifier circuit)
- Built-in Over Current Protection
- RoHS Compliant

Safety Agency Approvals

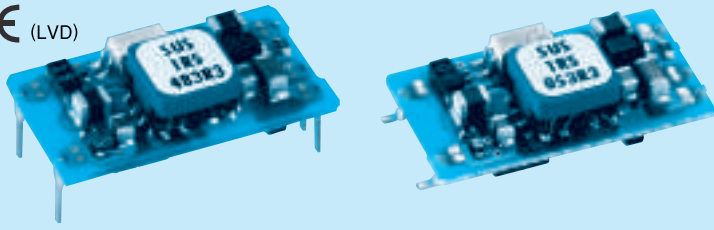
UL1950, C-UL, EN60950

CE Markings

Low Voltage Directive

5 year warranty(refer to Instruction Manual)

Model	Input Voltage [V]	Output Wattage [W]	DC Output [V/A]
SUS1R5053R3	DC 4.5 - 9	1.32	3.3V 0.4A
SUS1R50505	DC 4.5 - 9	1.5	5V 0.3A
SUS1R50512	DC 4.5 - 9	1.56	12V 0.13A
SUS1R50515	DC 4.5 - 9	1.5	15V 0.1A
SUS1R5123R3	DC 9 - 18	1.32	3.3V 0.4A
SUS1R51205	DC 9 - 18	1.5	5V 0.3A
SUS1R51212	DC 9 - 18	1.56	12V 0.13A
SUS1R51215	DC 9 - 18	1.5	15V 0.1A
SUS1R524R3	DC 18 - 36	1.32	3.3V 0.4A
SUS1R52405	DC 18 - 36	1.5	5V 0.3A
SUS1R52412	DC 18 - 36	1.56	12V 0.13A
SUS1R52415	DC 18 - 36	1.5	15V 0.1A
SUS1R5483R3	DC 36 - 76	1.32	3.3V 0.4A
SUS1R54805	DC 36 - 76	1.5	5V 0.3A
SUS1R54812	DC 36 - 76	1.56	12V 0.13A
SUS1R54815	DC 36 - 76	1.5	15V 0.1A



- ① Series name
- ② Single output
- ③ Output wattage
- ④ Input voltage
- ⑤ Output voltage
- ⑥ Mounting type
B : SMD
C : DIP
- ⑦ Packing form
Blank: Plastic cover
P : Pallet (SMD type)

MODEL	SUS1R5053R3	SUS1R50505	SUS1R50512	SUS1R50515	SUS1R5123R3	SUS1R51205	SUS1R51212	SUS1R51215
MAX OUTPUT WATTAGE[W]	1.32	1.5	1.56	1.5	1.32	1.5	1.56	1.5
DC OUTPUT	VOLTAGE[V] *1	3.3	5	12	15	3.3	5	12
	CURRENT[A]	0.4	0.3	0.13	0.1	0.4	0.3	0.1

SPECIFICATIONS

	MODEL	SUS1R5053R3	SUS1R50505	SUS1R50512	SUS1R50515	SUS1R5123R3	SUS1R51205	SUS1R51212	SUS1R51215
INPUT	VOLTAGE[V]	DC4.5 - 9				DC9 - 18			
	CURRENT[A] *2	0.377typ	0.405typ	0.422typ	0.405typ	0.153typ	0.164typ	0.171typ	0.164typ
	EFFICIENCY[%] *2	70typ	74typ	74typ	74typ	72typ	76typ	76typ	76typ
OUTPUT	VOLTAGE[V]	3.3	5	12	15	3.3	5	12	15
	CURRENT[A]	0.4	0.3	0.13	0.1	0.4	0.3	0.13	0.1
	LINE REGULATION[mV]	20max	20max	48max	60max	20max	20max	48max	60max
	LOAD REGULATION[mV]	40max	40max	100max	120max	40max	40max	100max	120max
	RIPPLE[mVp-p]	-20 to +55°C *3	80max	80max	120max	120max	80max	80max	120max
		-40 to -20°C *3	120max	120max	150max	150max	120max	150max	150max
	RIPPLE NOISE[mVp-p]	-20 to +55°C *3	120max	120max	150max	150max	120max	150max	150max
		-40 to -20°C *3	200max	200max	200max	200max	200max	200max	200max
	TEMPERATURE REGULATION[mV]	-20 to +55°C	50max	50max	150max	180max	50max	50max	150max
		-40 to +55°C	80max	80max	240max	290max	80max	80max	240max
	DRIFT[mV] *4	20max	20max	48max	60max	20max	20max	48max	60max
	START-UP TIME[ms]	20max (Minimum input, Io=100%)							
	VOLTAGE ADJUSTMENT RANGE	Fixed (TRM pin open) ±5% adjustable by external VR							
	VOLTAGE SETTING[V] (±3%)	3.21 - 3.42	4.90 - 5.21	11.64 - 12.36	14.55 - 15.45	3.21 - 3.42	4.90 - 5.21	11.64 - 12.36	14.55 - 15.45
	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically							

PROTECTION
CIRCUIT AND
OTHERS

SU-SUC

MODEL	SUS1R5243R3	SUS1R52405	SUS1R52412	SUS1R52415	SUS1R5483R3	SUS1R54805	SUS1R54812	SUS1R54815
MAX OUTPUT WATTAGE[W]	1.32	1.5	1.56	1.5	1.32	1.5	1.56	1.5
DC OUTPUT	VOLTAGE[V] *1	3.3	5	12	15	3.3	5	12
	CURRENT[A]	0.4	0.3	0.13	0.1	0.4	0.3	0.1

SPECIFICATIONS

	MODEL	SUS1R5243R3	SUS1R52405	SUS1R52412	SUS1R52415	SUS1R5483R3	SUS1R54805	SUS1R54812	SUS1R54815
INPUT	VOLTAGE[V]	DC18 - 36				DC36 - 76			
	CURRENT[A] *2	0.076typ	0.082typ	0.084typ	0.081typ	0.038typ	0.041typ	0.042typ	0.041typ
	EFFICIENCY[%] *2	72typ	76typ	77typ	77typ	72typ	76typ	77typ	77typ
OUTPUT	VOLTAGE[V]	3.3	5	12	15	3.3	5	12	15
	CURRENT[A]	0.4	0.3	0.13	0.1	0.4	0.3	0.13	0.1
	LINE REGULATION[mV]	20max	20max	48max	60max	20max	20max	48max	60max
	LOAD REGULATION[mV]	40max	40max	100max	120max	40max	40max	100max	120max
	RIPPLE[mVp-p]	-20 to +55°C *3	80max	80max	120max	120max	80max	80max	120max
		-40 to -20°C *3	120max	120max	150max	150max	120max	150max	150max
	RIPPLE NOISE[mVp-p]	-20 to +55°C *3	120max	120max	150max	150max	120max	150max	150max
		-40 to -20°C *3	200max	200max	200max	200max	200max	200max	200max
	TEMPERATURE REGULATION[mV]	-20 to +55°C	50max	50max	150max	180max	50max	50max	150max
		-40 to +55°C	80max	80max	240max	290max	80max	80max	240max
	DRIFT[mV] *4	20max	20max	48max	60max	20max	20max	48max	60max
	START-UP TIME[ms]	20max (Minimum input, Io=100%)							
	VOLTAGE ADJUSTMENT RANGE	Fixed (TRM pin open) ±5% adjustable by external VR							
	VOLTAGE SETTING[V] (±3%)	3.21 - 3.42	4.90 - 5.21	11.64 - 12.36	14.55 - 15.45	3.21 - 3.42	4.90 - 5.21	11.64 - 12.36	14.55 - 15.45
	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically							

PROTECTION
CIRCUIT AND
OTHERS

GENERAL SPECIFICATIONS

ISOLATION	INPUT-OUTPUT	AC500V 1minute, Cutoff current = 10mA, DC500V 50M Ω min (20 $\pm$ 15 $^{\circ}$ C)
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-40 to +85 $^{\circ}$ C, 20 - 95%RH (Non condensing) (Required Derating), 3,000m (10,000feet) max
	STORAGE TEMP., HUMID. AND ALTITUDE	-40 to +100 $^{\circ}$ C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max
	VIBRATION	10 - 55Hz, 98.0m/s ² (10G), 3minutes period, 60minutes each along X, Y and Z axis
	IMPACT	490.3m/s ² (50G), 11ms, once each along X, Y and Z axis
SAFETY	AGENCY APPROVALS	UL60950-1, C-UL, EN60950-1
OTHERS	CASE SIZE/WEIGHT	21.4 X 6.5 X 12.2mm (W X H X D) / 2g max
	COOLING METHOD	Convection/Forced air

*1 SUW1R5xx12/SUW1R5xx15 is available as single output, +24V/+30V.

*2 Rated input 5V, 12V, 24V or 48V DC Io=100%

*3 Ripple and Ripple Noise is measured by using measuring board with capacitor with in 25mm from output pin terminals.

*4 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25 $^{\circ}$ C.

* Parallel operation with other model is not possible.

External view

